Gain & Pain: *Stabilize to Mobilize*

Semper Fit Health Promotion Presentation

Overview

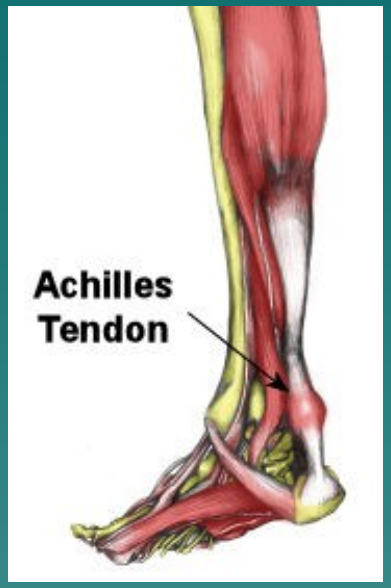
- When [Some] Pain is Gain
  - DOMS (Delayed Onset Muscle Soreness)
- When Pain is *Not* Gain
  - Symptoms of Injury
  - Classes of Injury
- It's Your House
  - Check Your Foundation
  - Check Your Frame
- Holding Patterns
- Loosening Up
- PROVERBS of PT

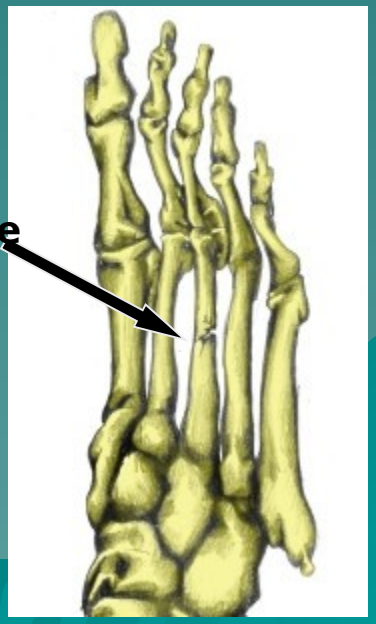
When [Some] Pain is Gain

- Delayed Onset Muscle Soreness (DOMS):
  - Most soreness occurs 24-48 hrs after PT
  - Less soreness after 72 hrs
  - Slight burning feeling
  - No swelling or bruising
  - Pain alleviated by gentle stretching / massage

When Pain is *Not* Gain

- Symptoms of Injury:
  - Pain
  - Swelling
  - Numbness / Tingling
  - Decreased Range of Motion
  - Discoloration / Bruising
  - Spasm
  - Loss of Strength
  - Loss of Functional Capacity





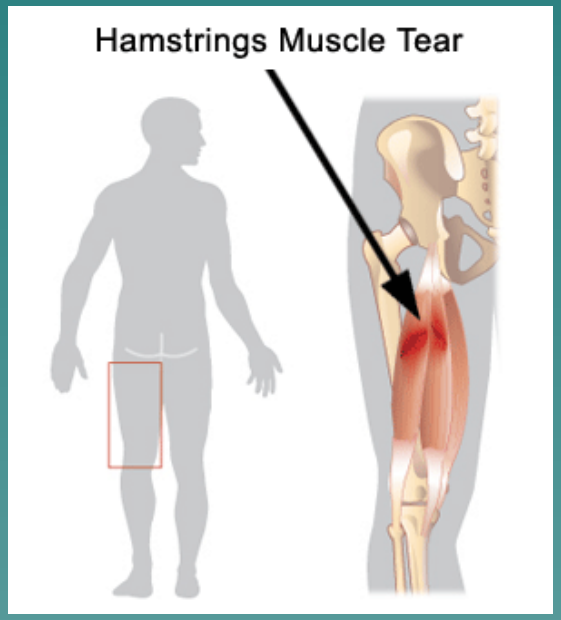
When Pain is *Not* Gain: 2 Classes of Injuries

Acute

Onset: Immediate

Caused By: Trauma

Ex: Muscle Tears, Sprains



Chronic

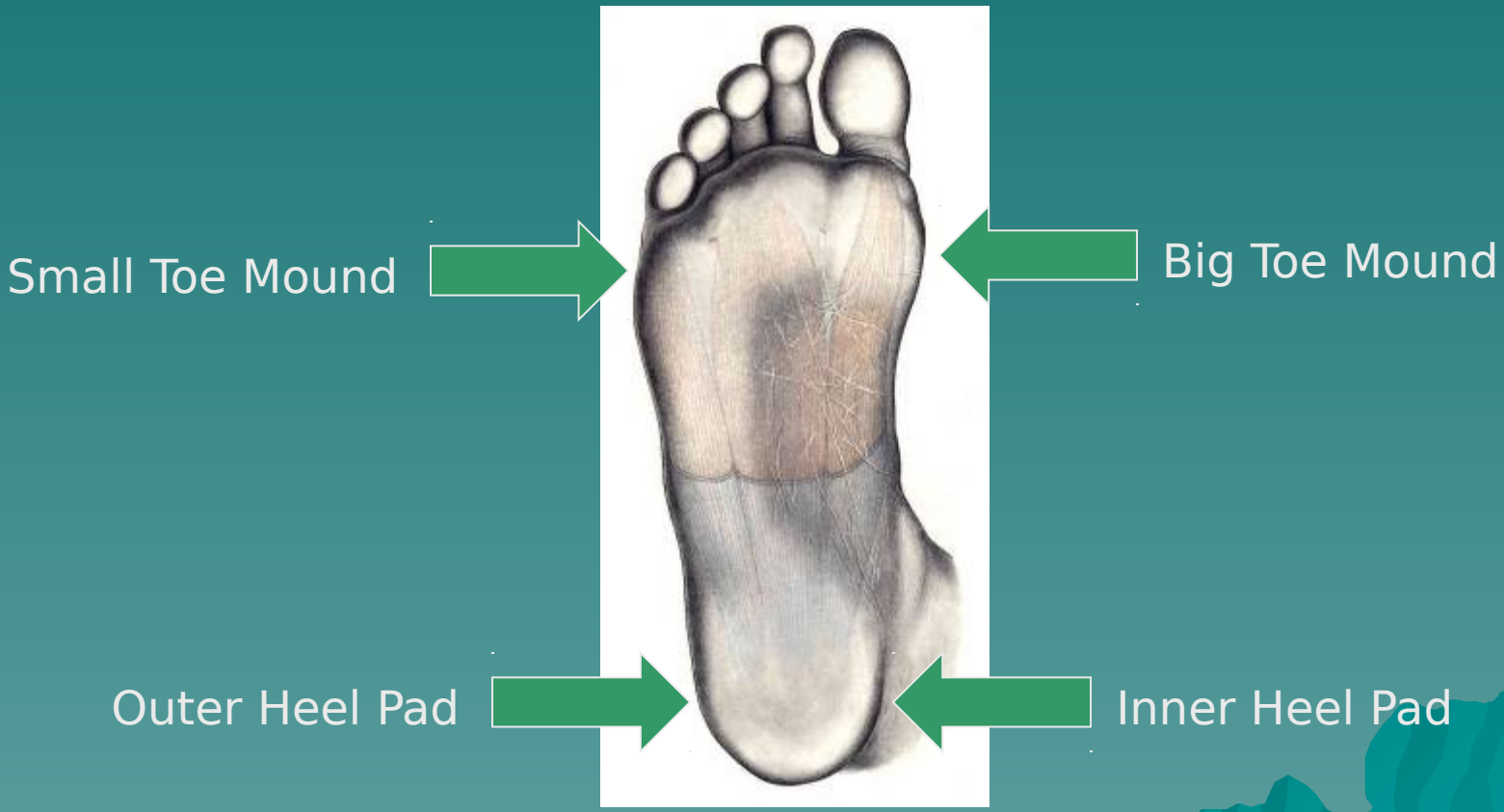
Onset: Gradual

Caused By: Repeated Stress

Ex: Stress Fractures, Plantar Faciitis

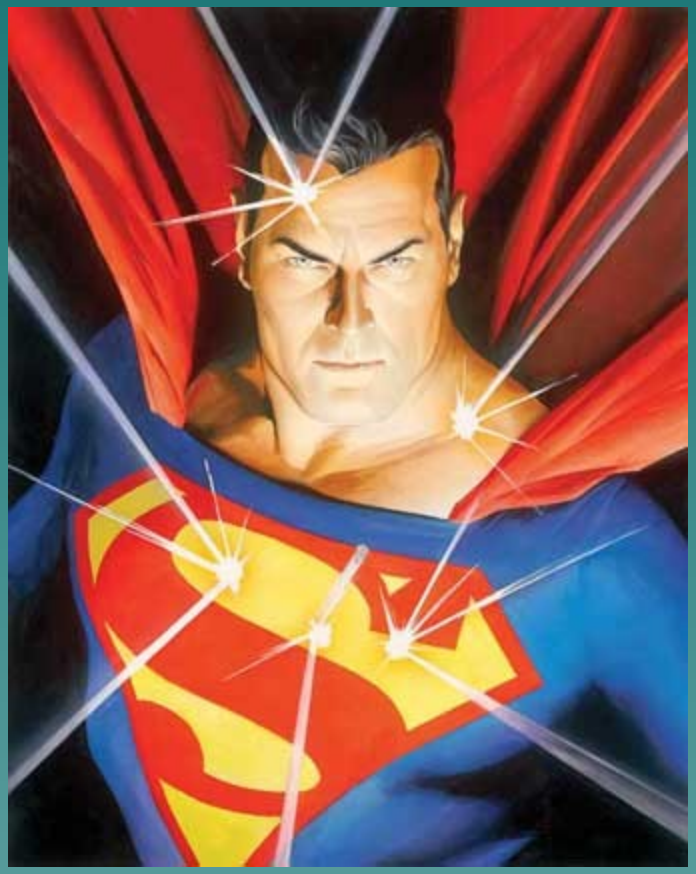
It’s Your House: Check Your Foundation

- Four Corners of the Feet



It’s Your House: Check Your Frame

Strengthen From the Inside Out



Holding Patterns: Posture
Aligned vice Out o' Whack

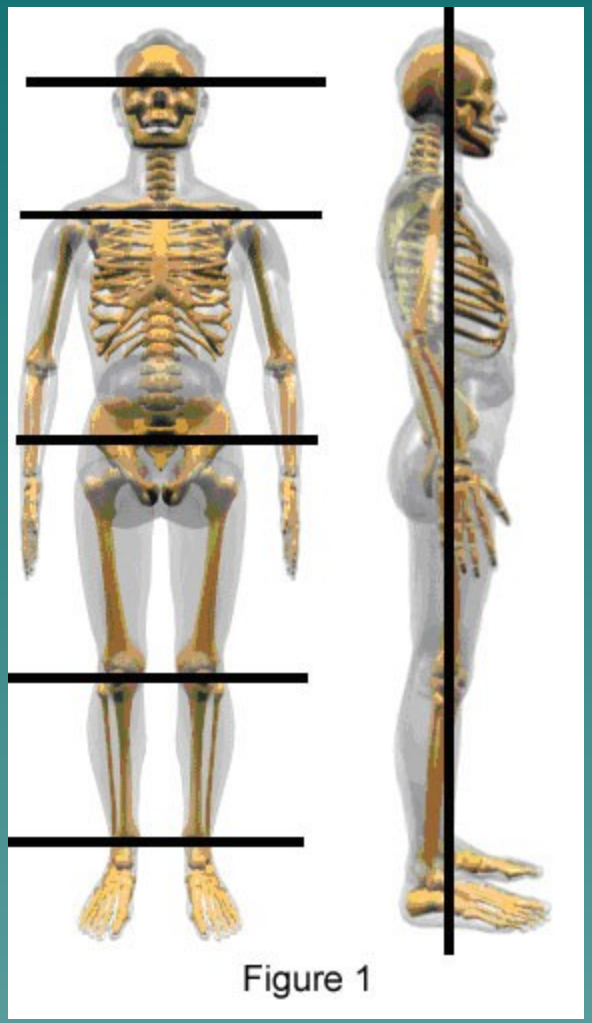


Figure 1

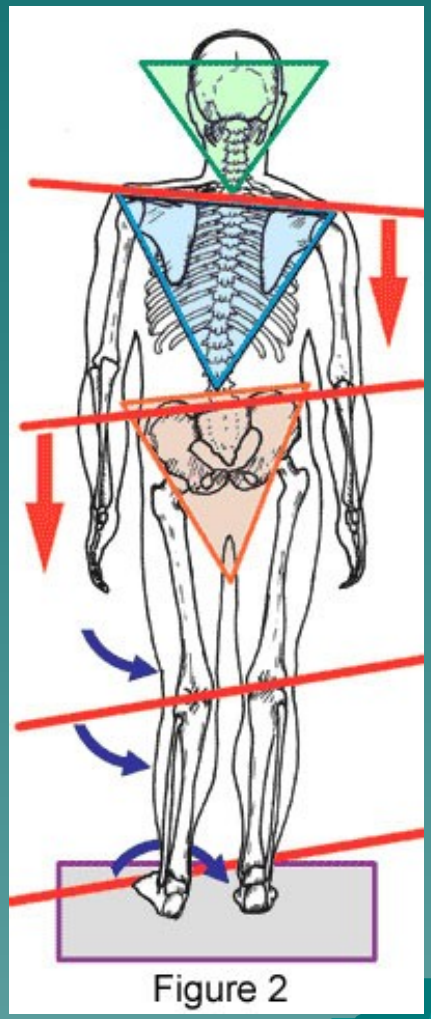
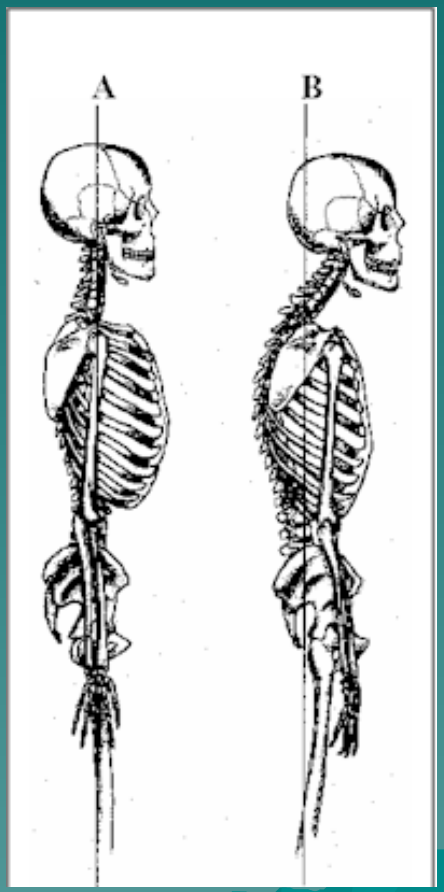
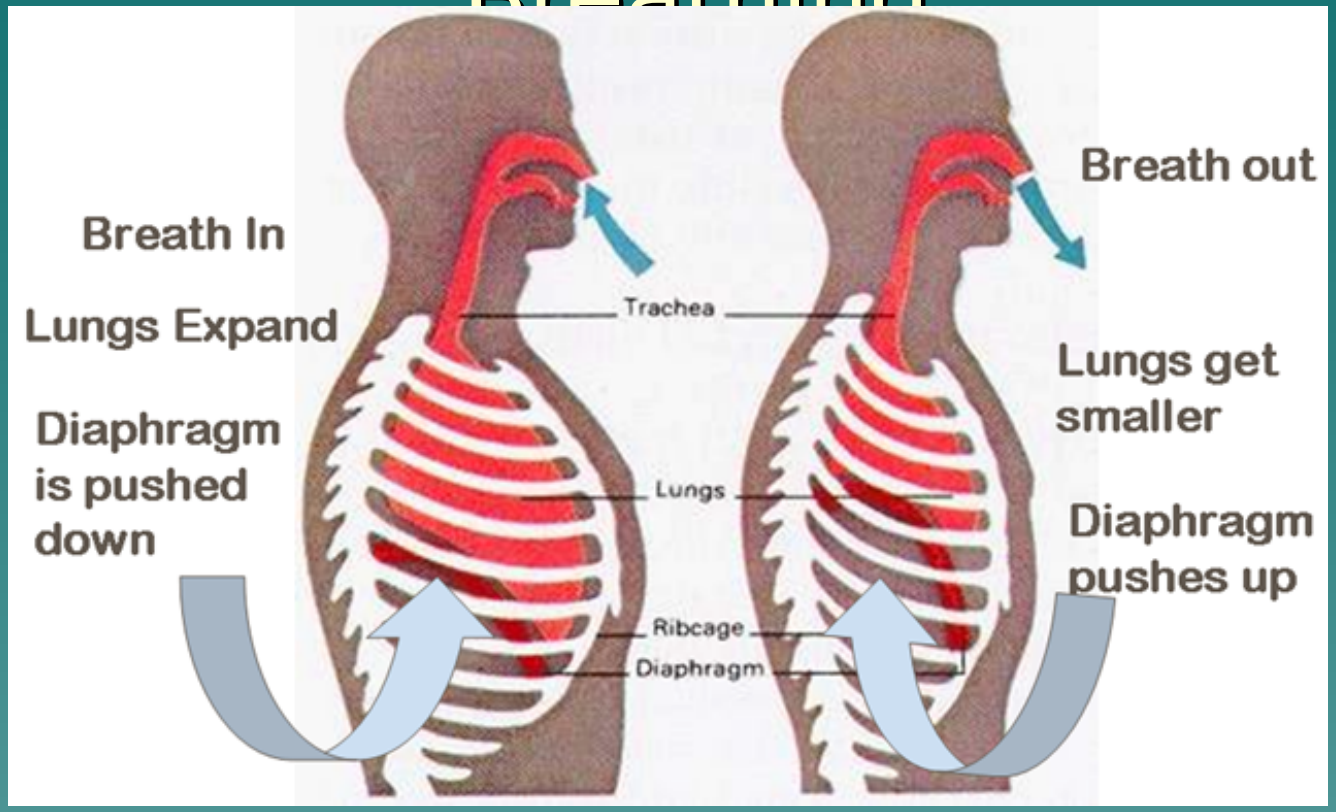


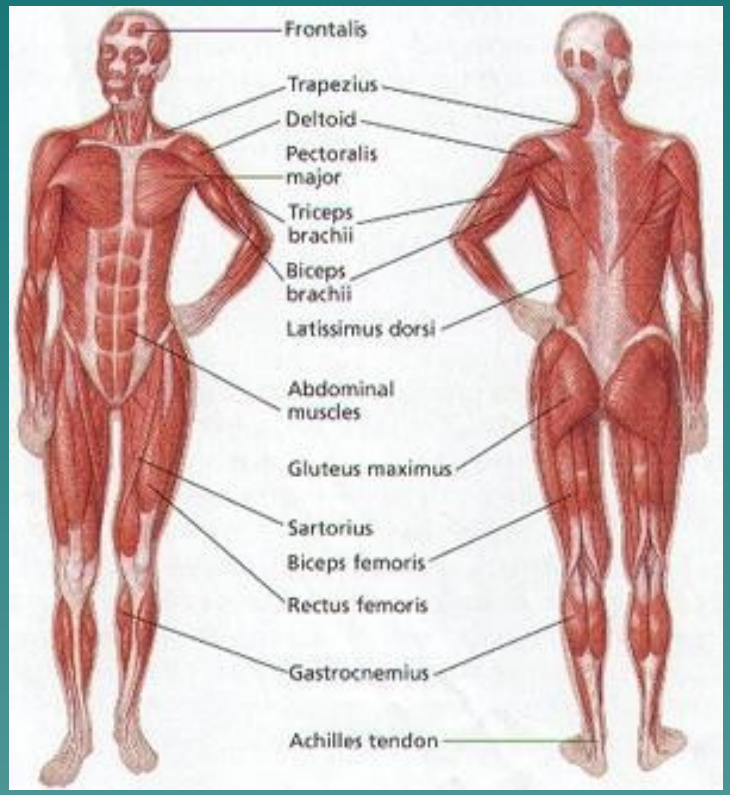
Figure 2



Holding Patterns: Breath Diaphragmatic vice Chest Breathing



Holding Patterns: Muscles
Supportive vice Clenched



Muscular Imbalances = Less Efficient Muscles → Increased Potential of Overuse Injury

Loosening Up

Before:
Dynamic Warm-Up

During:
Mind over Muscle –
Instructing Your Muscles to Relax

After:
The Stretching Debate

Types of Stretching

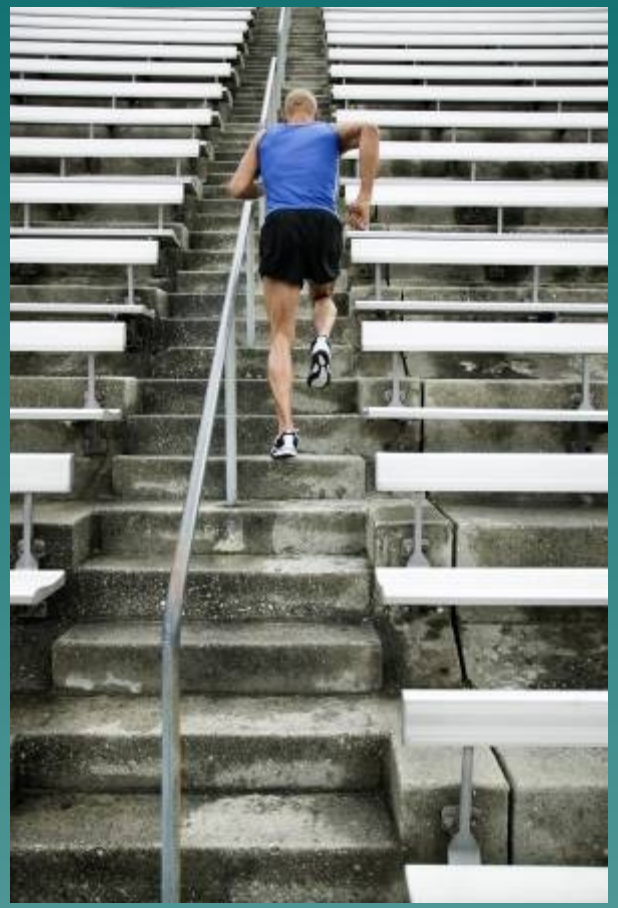
- Static:
  - Low-force, long-duration, nonmoving
  - Hold stretch for 15 – 30 seconds
  - Has been shown to produce good results on warm muscles
- Ballistic or Dynamic: *NOT RECOMMENDED*
  - High-force, short-duration, bobbing, bouncing
  - Invokes a “stretch reflex” or muscle contraction that can *increase* muscle tension
- Proprioceptive Neuromuscular Facilitation (PNF)
  - Static stretch immediately following contraction against resistance
  - Developed for rehab purposes in physical therapy
  - Superior to static & ballistic stretching
  - *Requires PARTNER TRAINED IN THE TECHNIQUE*

General Stretching Guidelines

- Warm up muscles before stretching
- Avoid bouncing or jerking
- Stretch gently only to point of perceived muscle tension
- Move within normal range of motion
- Stretching should not be painful
- Flexibility varies greatly from person to person (based on genetics & training)

PROVERBS of PT

- Progression
- Regularity
- Overload
- Variety
- Engagement
- Recovery
- Balance
- Specificity



PROVERBS
P = PROGRESSION

Slow & Steady Wins the Race

To increase fitness gradually & safely, focus on 1 thing at a time:

- **Frequency** (How Often)
- **Duration** (How Long)
- **Intensity** (How Hard)

PROVERBS
R = REGULARITY

Consistency is Key

Cover All 4 Fitness Bases Each Week:

- **Aerobic Capacity**
- **Muscular Strength**
- **Flexibility**
- **Muscular Endurance**

PROVERBS
O = OVERLOAD

Find Your Edge

Perceived exertion level must **exceed normal** physical demands to achieve a training effect

PROVERBS
E = ENGAGEMENT

Activate

Mind

Muscles

Motivation

PROVERBS
V = VARIETY

Spice it Up

Mix up your routine to keep **motivation & interest** levels **high**

Cross train to hit all muscle groups

PROVERBS
R = RECOVERY

Go Full Circle

Training is a **cycle**:

Effort (Break Down) → **Rest** (Build Up)

Muscle ***growth*** **happens** during the **rest** phase, not during the effort phase

PROVERBS
B = BALANCE

Cover All the Bases

Effective PT Programs include:

- **Aerobic Capacity**
- **Muscular Strength**
- **Flexibility**
- **Muscular Endurance**

PROVERBS
S = SPECIFICITY

Sound Off

Tailor training to ***specific goals***

*"... **setting specific goals** leads to **higher performance*** compared with no goals or vague goals."

Source: American Heart Assn, July '10

Review

- When Pain is Not Gain
- Check Your Foundation
- Notice & Loosen Up
- PT PROVERBS

Questions?

Points of Contact

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MCCS MARINE CORPS Community Services

UNITED STATES MARINE CORPS SEMPER FIT SPORTS, RECREATION & FITNESS